

ATTACHMENT A

13. (Currently Amended) A monocyclopentadienyl complex comprising formula Cp–Z-A-M^A (II), where:

Cp-Z-A is

$$A \longrightarrow Z \longrightarrow E^{5A} \longrightarrow E^{2A} \longrightarrow R^{2A}$$

$$A \longrightarrow Z \longrightarrow E^{5A} \longrightarrow E^{3A} \longrightarrow R^{3A}$$

$$R^{4A} \longrightarrow R^{4A}$$

$$R^{4A} \longrightarrow R^{4A}$$

$$R^{4A} \longrightarrow R^{4A}$$

where:

E^{1A}-E^{5A} are each carbon;

 R^{1A} - R^{4A} are each, independently of one another, hydrogen, a C_1 - C_{22} -alkyl, a C_2 - C_{22} -alkenyl, a C_6 - C_{22} -aryl, an arylalkyl comprising from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part, or SiR^{5A}_3 , where R^{1A} - R^{4A} optionally can be substituted by at least one halogen and two vicinal R^{1A} - R^{4A} optionally can be joined to form a five-, six- or seven-membered ring;

 R^{5A} are each, independently of one another, hydrogen, a C_1 - C_{20} -alkyl, a C_2 - C_{20} -alkenyl, a C_6 - C_{20} -aryl, an arylalkyl comprising from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part, or two geminal R^{5A} optionally can be joined to form a five- or six-membered ring;

Z is a divalent bridge between A and Cp and is

where

L^{1A} is carbon, silicon or germanium;

D^{1A} is an atom of group 15 or 16 of the Periodic Table of Elements;

n is 0 when D^{1A} is an atom of group 16, and is 1 when D^{1A} is an atom of group 15;

 R^{6A} - R^{8A} are each, independently of one another, hydrogen, a C_1 - C_{20} -alkyl, a C_2 - C_{20} -alkenyl, a C_6 - C_{20} -aryl, an arylalkyl comprising from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part, or SiR^{9A}_{3} , where R^{6A} - R^{8A} optionally can be substituted by at least one halogen and two geminal or vicinal R^{6A} - R^{8A} optionally can be joined to form a five- or six-membered ring;

 R^{9A} are each, independently of one another, hydrogen, a C_1 - C_{20} -alkyl, a C_2 - C_{20} -alkenyl, a C_6 - C_{20} -aryl or an arylalkyl comprising from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part, a C_1 - C_{10} -alkoxy or a C_6 - C_{10} -aryloxy, or two R^{9A} optionally can be joined to form a five- or six-membered ring;

A is an uncharged donor group comprising at least one atom of group 15 and/or 16 of the Periodic Table of Elements and is an unsubstituted, substituted or fused, heteroaromatic ring system or a carbene; and comprises formula (IV):

$$R_{p}^{13A} = R_{p}^{14A}$$

$$R_{p}^{13A} = R_{p}^{15A}$$

$$R_{p}^{15A} = R_{p}^{15A}$$

$$R_{p}^{16A} = R_{p}^{16A}$$

$$R_{p}^{16A} = R_{p}^{16A}$$

$$R_{p}^{16A} = R_{p}^{16A}$$

<u>where</u>

E^{6A}-E^{9A} are each, independently of one another, carbon, or nitrogen;

 R^{13A} - R^{16A} are each, independently of one another, hydrogen, a C_1 - C_{20} -alkyl, a C_2 - C_{20} -alkenyl, a C_6 - C_{20} -aryl, an arylalkyl comprising from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part, or SiR^{17A}_3 , where R^{13A} - R^{16A} optionally can be substituted by at least one halogen or nitrogen, or two vicinal

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R^{13A}-R^{16A} or R^{13A} and Z optionally can be joined to form a five- or six-membered ring;

 R^{17A} are each, independently of one another, hydrogen, a C_1 - C_{20} -alkyl, a C_2 - C_{20} -alkenyl, a C_6 - C_{20} -aryl or an arylalkyl comprising from 1 to 10 carbon atoms in the alkyl part and 6-20 carbon atoms in the aryl part, or two R^{17A} optionally can be joined to form a five- or six-membered ring;

p is 0 when E^{6A}-E^{9A} is nitrogen, and is 1 when E^{6A}-E^{9A} is carbon; and

M^A is chromium, molybdenum, or tungsten.

- 14. (Previously Presented) The monocyclopentadienyl complex as claimed in claim 13, wherein L^{1A} is silicon.
- 15. (Previously Presented) The monocyclopentadienyl complex as claimed in claim 13, wherein D^{1A} is oxygen, sulfur, nitrogen, or phosphorus.

Claims 16 - 18: (Cancelled)

- 19. (Previously Presented) The monocyclopentadienyl complex as claimed in claim 13, wherein Z- is -SiR^{6A}R^{7A}-O-.
- 20. (Cancelled)
- 21. (Previously Presented) A catalyst system for olefin polymerization comprising:
 - A) at least one monocyclopentadienyl complex as claimed in claim 13;
 - B) optionally, an organic or inorganic support;
 - C) optionally, one or more activating compounds;
 - D) optionally, further catalysts suitable for olefin polymerization; and
 - E) optionally, one or more metal compounds comprising a metal of group 1, 2 or 13 of the Periodic Table of Elements.

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Claims 22 - 24: (Cancelled)

25. (Previously Presented) A process for preparing polyolefins by polymerization or copolymerization of olefins in presence of the catalyst system as claimed in claim 21.

26. (Cancelled)